

**WHAT IS CLAIMED IS:**

1. A multi-processor system comprising: a plurality of node groups each including a plurality of nodes and a service processor for managing said plurality of nodes; a service processor manager for managing said service processors of said plurality of node  
5 groups; a network for interconnecting said plurality of nodes of said plurality of node groups, and a partition including a selected number of nodes selected from said plurality of nodes of said plurality of node groups, wherein:

a failed node among said selected number of nodes  
10 transmits failure information including occurrence of a failure to a corresponding service processor, which prepares first status information of said failed node based on error log information of said failed node and transmits said first status information to said service processor manager;

15 said failed node transmits failure notification data including said failure information to other nodes of said selected number of nodes;

said other nodes transmit said failure information to respective said service processors, which prepare second status  
20 information based on error log information of said other nodes and transmit said second status information to said service processor manager; and

said service processor manager identifies a location of said

failed node based on said first and second status information to  
25 indicate said service processors in said partition to recover from  
said failure.

2. The multi-processor system according to claim 1, wherein  
said failed node transmits a failure notification packet including  
said failure notification data to said other nodes through said  
network.

3. The multi-processor system according to claim 2, wherein  
said failure notification packet has destination addresses  
specifying said other nodes.

4. The multi-processor system according to claim 2, wherein  
said failure notification packet is transmitted by broadcasting to  
said plurality of nodes of said plurality of node groups, and said  
other nodes of said selected number of nodes fetch therein said  
5 failure notification packet based on partition information of said  
failed node.

5. The multi-processor system according to claim 2, wherein  
said failed node transmits said failure information through a  
communication channel different from a communication channel  
used for an ordinary transaction.

6. The multi-processor system according to claim 1, wherein said service processors and said service processor manager are connected together via a dedicated communication line.

7. The multi-processor system according to claim 1, wherein if said corresponding service processor judges that said failure is a minor error, said corresponding service processor isolates said failed node from said partition.

8. The multi-processor system according to claim 1, wherein said service processor manager indicates said service processors in said partition to reset said partition in synchrony with one another.

9. A method for recovering from a failure in a multi-processor system including: a plurality of node groups each including a plurality of nodes and a service processor for managing said plurality of nodes; a service processor manager for managing said service processors of said plurality of node groups; a network for interconnecting said plurality of nodes of said plurality of node groups, and a partition including a selected number of nodes selected from said plurality of nodes of said plurality of node groups, said method comprising the steps of:

transmitting failure information including occurrence of a failure from a failed node among said selected number of nodes to

a corresponding service processor, thereby allowing said corresponding service processor to prepare first status information of said failed node based on error log information of said failed node and transmit said first status information to said service processor manager;

transmitting failure notification data including said failure information from said failed node to other nodes of said selected number of nodes;

transmitting said failure information from said other nodes to respective said service processors, thereby allowing said service processors to prepare second status information based on error log information of said other nodes and transmit said second status information to said service processor manager; and

allowing said service processor manager to identify a location of said failed node based on said first and second status information and indicate said service processors in said partition to recover from said failure.